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## ミクロネシア産たこのき圖説（其一）

金 平 亮 三

R. KANEHIRA: Icones Pandanorum Micronesicorum (I)

The flora of Micronesia is very rich in forms of *Pandanus*, up to date 41 species, 6 varieties being recorded of which about 39 species and 6 varieties are endemic. The species are difficult to identify, the diagnostic characters being principally found in the syncarps and phalanges. The phalange characters vary even in the same syncarp, it being essential to determine the specific characters common to all the phalanges forming an individual syncarp. It is practically impossible to identify the species of *Pandanus* by des-

criptions alone, no matter how critically they are prepared, unless they are supplemented by well-drawn figures or by photographs. It is also desirable to base the description on the entire syncarp, rather than on an individual or on few phalanges thus including in the description the shape and size of syncarps and also the arrangement of the phalanges within the syncarp. The preparation of good specimens of *Pandanus* is difficult. If the fruits are not thoroughly dried, the phalanges decay and soon become detached. An excellent method is to split the syncarps longitudinally and dry them thoroughly in an oven or by exposure to the sun.

In this work I undertook to photograph the syncarps and phalanges of each described species of *Pandanus*, the material being selected in order that direct comparisons of the numerous forms could be made. It is confidently believed that these illustrations will materially assist those who are concerned with making identifications in this difficult genus.

The *Pandanus* are among the most useful plants in Micronesia, as they furnish edible fruits, while the leaves are used for textiles. From the leaves natives make mats, baskets and other articles such as bags, fans etc., as well as a kind of cloth known as "salon" used for clothing.

The expenses in connection with this study of the species of *Pandanus* occurring in Japan and in its possessions was partly defrayed by a grant from the Imperial Academy of Science.

The author expresses his thanks to Mr. M. HOSINO and Mr. S. OKAMOTO who prepared many excellent specimens from material collected in the East Carolines and Palau and to other individuals who have cooperated in collecting specimens in various parts of Micronesia. Lastly he wishes to express his indebtedness to his assistant Mr. M. SIGEMATU who prepared the photographs, good illustrations being indispensable.

ミクロネシアノたこのき屬ハ既知ノモノ凡 41 種 6 變種アリ是等ヲ識別スルコトハ勿論、將來採集スベキ標本ヲ鑑定スル上ニ於テモ完全ナル圖ニヨルコトガ最モ便利ト考ヘル、依テ茲ニ寫眞ニヨル圖譜ヲ掲ゲテ大方ノ批判ヲ乞フコトニシテ、ミクロネシアニ産スル本屬ノ大多數ハ筆者ノ創定スル處デ將來學名ヲ變更スベキモノナキヲ保シ難イガ標本ノ寫眞ニハ何等ノ影響ハナイ。

たこのき標本ノ採集調製ニハ色々ノ困難ガアリ又少カラヌ手數ヲ要スルガボ



Fig. 1. *Pandanus cylindricus* KANEH. (ボナペ島、Photo. HOSINO)

ナベ産業試験場技師星野守太郎氏、パラオ試験場岡本象三ノ二氏ハ特ニ多大ノ援助ヲ與ヘラレタ、茲ニ特記シテ感謝ノ意ヲ表シ度イ。

掲載ノ寫眞ハ余及ビ助手重松將雄君ノ撮影シタモノデコノウチニハ既ニ植物學雜誌ソノ他ニ掲載シタ數種ガアルガ本誌ニ之レヲ統一スル爲メ已ムナク再ビ茲ニ掲グルコトニシタ。

1) **Pandanus cylindricus** KANEH. in Bot. Mag. Tokyo **49** (1935) 63, f. 3 te Enum. Micr. Pl. (1935) 260. (Fig. 1, 2).

A remarkable species with large cylindric syncarps, which are about 45 cm long, 25 cm in diam. It is also characterized by its many-loculed phalanges and by its bony endocarps which is intermixed with upper lacunose mesocarp. The type was from Ponape, also known from Mokieli, an island near Ponape. In thickets near the seashore.

Vern. name: "Siraue"

ボナペ島ジヨカージノ山麓叢林中ニ採集ス、高サ 4-5 m(?)、枝ヲ分岐シ葉ハ長サ 150 cm, 幅 8 cm, 漸尖頭、縁邊ニ小刺ガアル。Syncarp ハ單一、懸垂シ圓筒狀ヲナスノガ本種ノ特長デ長サ 45 cm ニ達スル、ミクロネシアハ勿論今マデニ知ラレタ種類ノウナ最モ長キモノノーツデアル、徑 25 cm, 兩端ハ稍々截形狀圓形、phalange ノ數凡 98, 不規則排列、倒卵形長サ 7~10 cm, 頂部ノ徑 8 cm, 多少横ニ壓縮シ全長ノ上部 1/4 ハ分離ス、胞室ノ數ハ 15~18 ナルモ時トシテ 32 ニ達スルモノガアル、ソノ大サハ殆ド同形ナルモ外縁ノモノ稍々大、びらみつど狀、稍々銳頭、柱頭ハ小、多少彎曲スル、phalange ノ縦斷面ニ於ケル内果皮ハ上半部ニ位置シ多室ノ中果皮中ニ介在スルコトハ本種ノ特色デアル。下部ノ中果皮ハ phalange ノ全長ノ 1/2 ニ達シ纖維質カラナル。

本種ノたいぶハボナペ島産デアルガソノ離島モキール島ニモ産シ島名(ボナペ)ヲしらうエト云フ。

2) **Pandanus cylindricus** var. **Sinnau** KANEH. in Bot. Mag. Tokyo **49** (1935), 356, f. 30 et Enum. Micr. Pl. (1935) 260. (Fig. 3) 356, f. 30.

Syncarp cylindric about 30 cm long, 20 cm in diameter. Phalanges obpyriform, locules 9-16, convex, not acute, the marginal ones broader, irregularly arranged. The basal parts of the phalanges are eaten by the natives. The type from Truk. Vern. name: "Sinnau."

トラツク島産、同支廳長山口勇三郎氏採集、種ニ比シ syncarp ハ稍々短ク外側ノ胞室ハ稍々大キク又胞室ハ種ノ如キびらみど狀ヲナサズ凸狀デ鈍頭ヲナスニヨリ區別スル、島名（トラツク島）ヲしんなうト云フ。

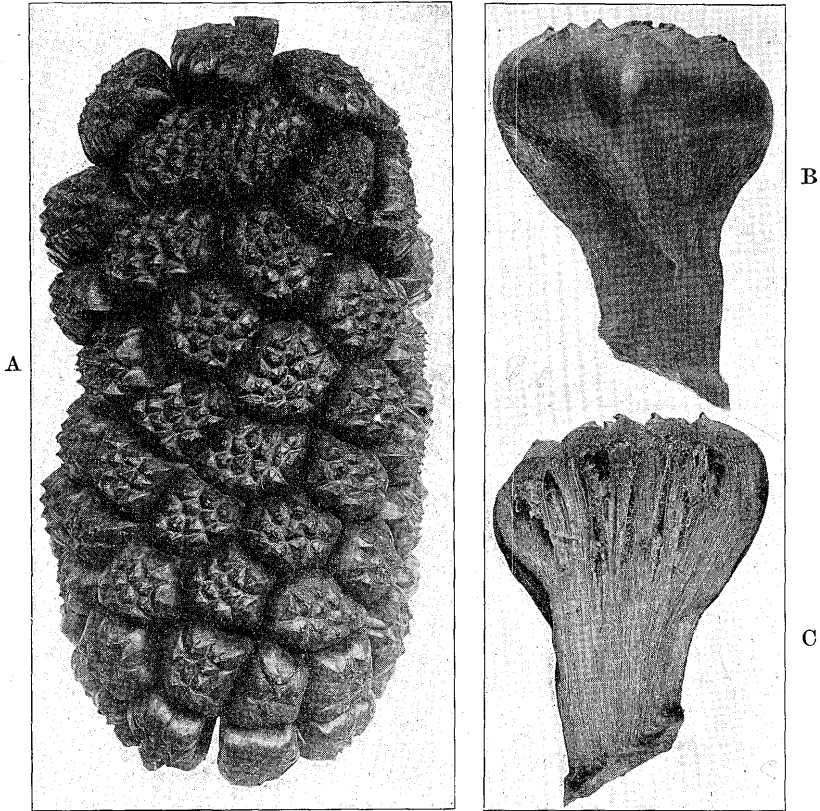


Fig. 2. *Pandanus cylindricus* KANEH. (Ponape No. 2510, type)  
A Syncarp  $\times 1/5$  B Phalange  $\times 1/2$  C Do. Longit. section  $1/2$

3) ***Pandanus dilatatus* KANEH.** in Bot. Mag. Tokyo **48** (1935) 63, f. 4  
Enum. Micr. Pl. (1935) 260. (Fig. 4)

Syncarp globose, 23 cm in diam., 27 cm long, composed of about 70–80 club-shaped phalanges which are enlarged in the middle, the upper one third free, angular, the apex subtruncate, the base abruptly narrowed, about 4 cm in diameter, 7-to 9-loculed, apices of the loculi pyramidal, about 3–4 mm long.

In thickets at low altitudes. The type was from Ponape. Vern-name: "Kienpel."

ポナペ島ナット村ニ採集ス。葉ハ長サ 190 cm, 幅 9 cm. ニ至ル、刺ハ疎、Syncarp  
ハ單一、懸垂ス、殆ド球形、徑 27 cm, 徑 23 cm, Phalange ノ數 70-80, 棍棒狀  
長サ 10 cm, 徑 4.5 cm, 上部 1/3 ハ分離ス、側面ニ稜角アリ、先端截形基部急ニ  
漸尖、phalange ノ中央、分離部分ノ直下ガ膨大セルコトハ本種ノ特長トス、胞  
室ハ 7-9, 多少同心圓狀排列、びらみど狀、高サ 3-4 mm 溝ハ深く且ツ狭シ  
phalange ノ縦斷面ニ於テ内果皮ハ中部ニアリ、上部ハびらみど狀、底部ハ圓  
形、上部中果皮ハ空氣室ヲ有シ外縁ノモノ著大、下部中果皮ハ纖維質。島名(ポ  
ナペ島)ヲきえんべるト云フ。

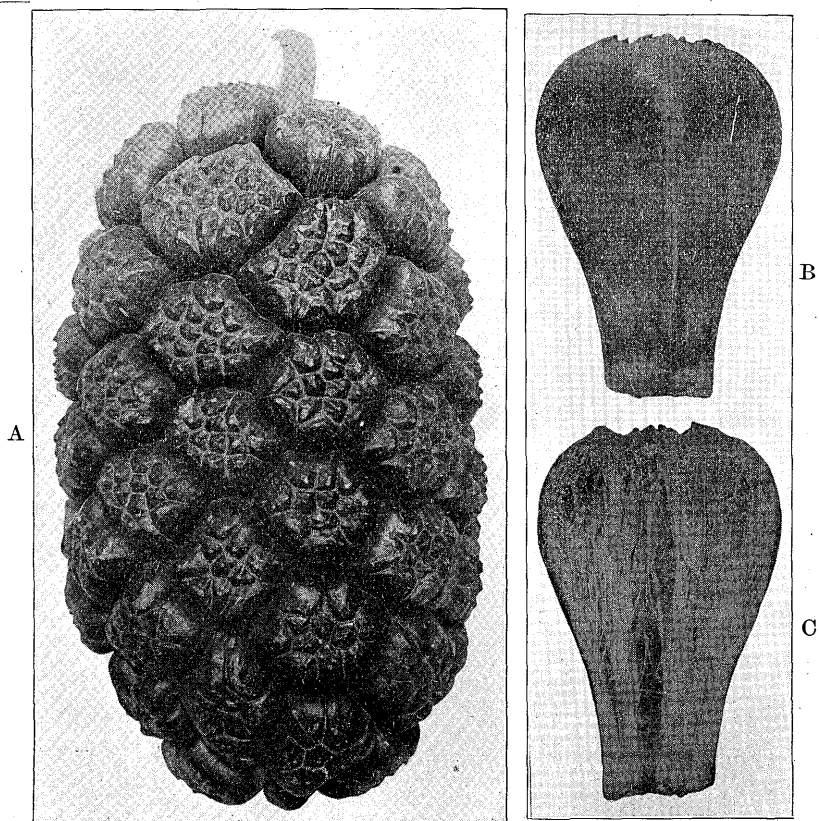


Fig. 3. *Pandanus cylindricus* var. *Sinnau* KANEH. (Truk No. 3448, type)  
A Syncarp  $\times 1/3$ . B Phalange  $\times 1/2$  C Do. Longit. section  $\times 1/2$

4) *Pandanus brachypodus* KANEH. in Bot. Mag. Tokyo **49** (1935) 425. f. 32, Enum. Micr. Pl. (1935) 260. (Fig. 5).

Syncarp nearly globose, 16 cm in diam., composed of about 43 obovoid phalanges which are nearly truncate at the apex, cuneate at the base, locules about 5, irregular in size, more or less concentrically arranged, outer ones much larger than the inner, apices of the locules somewhat concave when dried, sulci between the loculi very wide and deep. It is distinguished by its rather few and short phalanges, the apices of the locules being somewhat concave. The type was from Enchabi Island, an isolated atoll situated about 250 miles to the northeast of Kusai. Vern. name: "Punmusi."

クサイ島ノ東北エンチャビ島ノ産、ボナベ支廳大庭氏採集ス。

Syncarp ハ單一、懸垂シ殆ド球形、長サ 17 cm, 徑 16

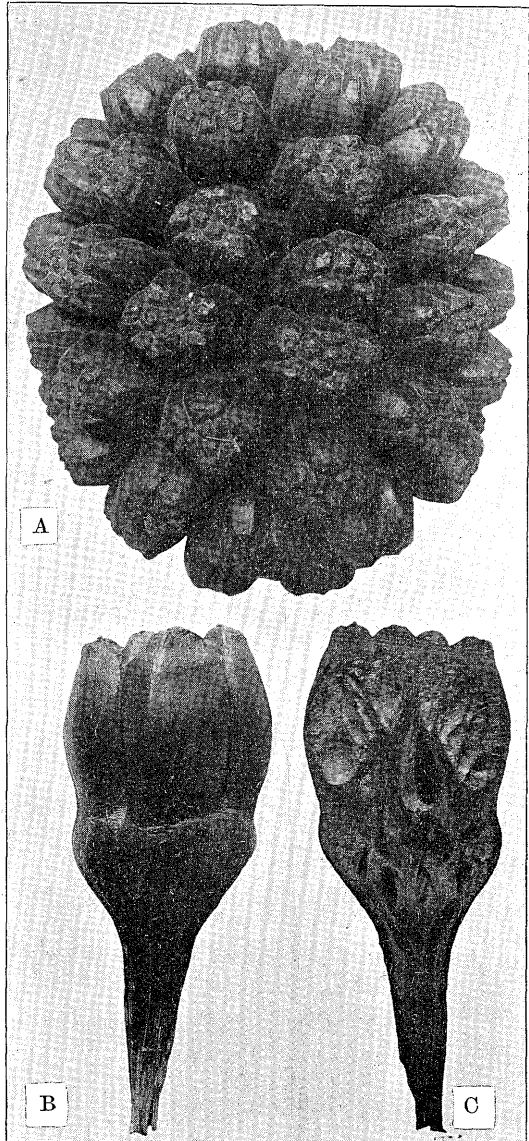
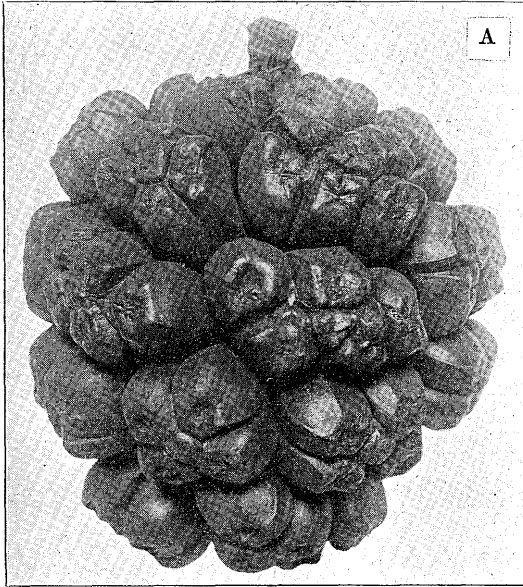


Fig. 4. *Pandanus dilatatus* KANEH. (Ponape No 2808, type)

A Syncarp  $\times 1/4$  B Phalange  $\times 7/10$  C Do. Longit. section  $\times 7/10$

cm, phalange ハ凡 43, 倒卵形、長サ 7.5 cm, 徑 4.5~6cm, 上半部分離ス、上部ハ殆ト平、基部ハ鈍形又ハ銳形、胞室 4~6, 普通 5, 不同、多少同心圓狀排列、外縁ノモノハ横ニ長ク



且ツ大、先端ハ殆ト截形、中央部多少凹入ス、柱頭僅ニ凸起ス、胞間ノ溝ハ廣ク且ツ深シ、内果皮ハ中部ヨリモ稍々上部ニ位置シ中央部びらみつと狀、基部ハ圓形、中果皮ハ多室、多孔、外縁ノモノ大、基部ハ纖維質。

本種ノ phalange ハソノ數少ク直径ニ比シ長サガ短キコト、先端ハ截形狀、胞室ノ中央部凹入スルヨリ他ノスベテノ數類ト區別ス。島名(エンチャビ島)ヲぶんむしト云フ。

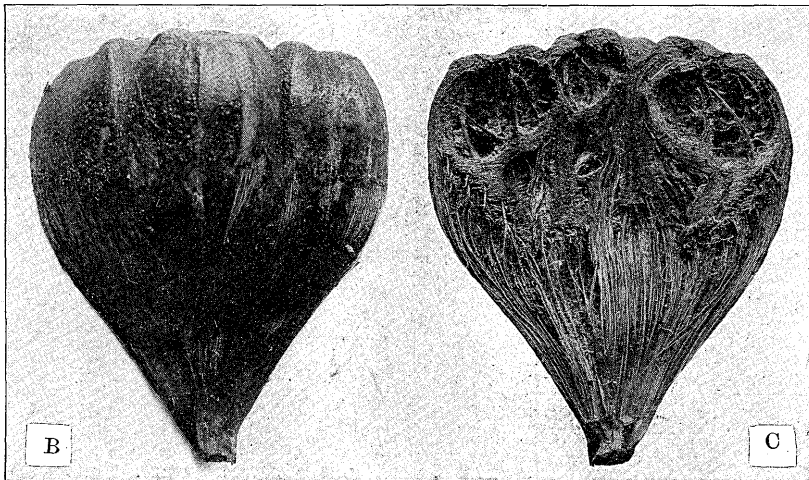


Fig. 5. *Pandanus brachypodus* KANEH. (Enchabi No. 3480, type)  
A Syncarp  $\times 3/8$ . B Phalange  $\times 2/3$ . C Do. Longit. section  $\times 2/3$ .



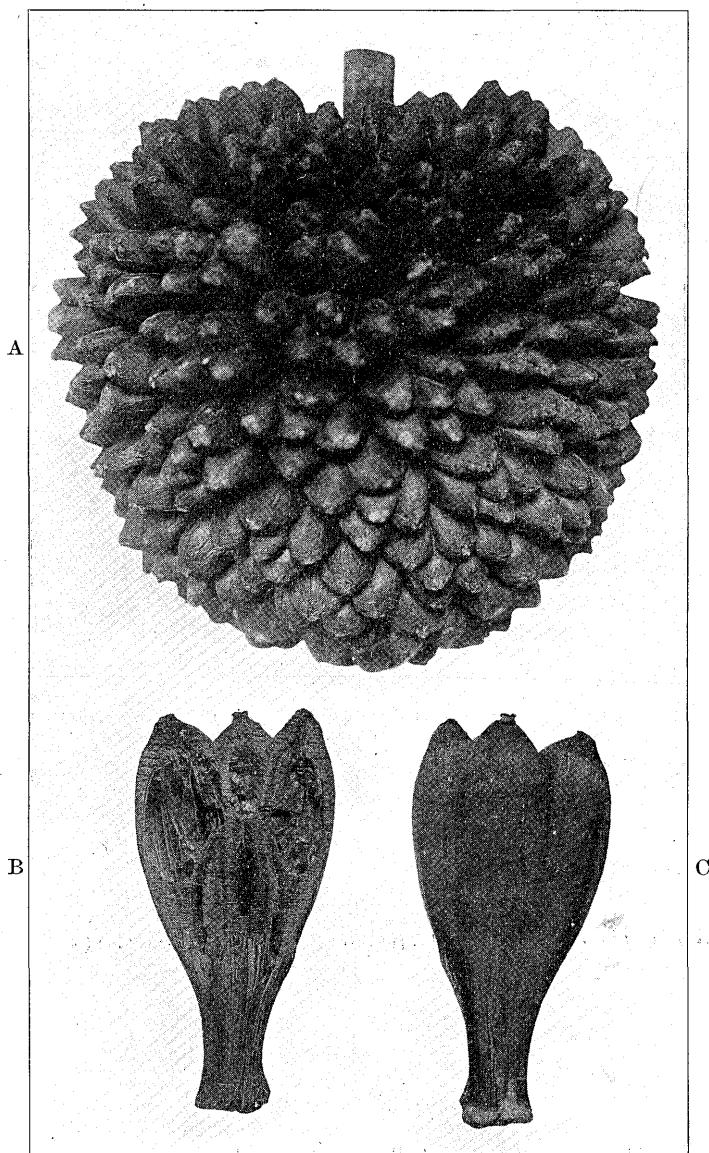


Fig. 6. *Pandanus duriocarpoides* KANEH. (Yap No. 3497, type)

A Syncarp  $\times 1/2$ . B Phalange  $\times 5/7$ .

C Do. Longit. section  $\times 5/7$ .

5) **Pandanus duriocarpoides** KANEH. in Bot. Mag. Tokyo **49** (1935) 525, f. 37 et Enum. Micr. Pl. (1935) 260. (Fig. 6)

Syncarp subglobose, 18 cm in diam., composed of about 90 phalanges which are so closely arranged that it is impossible to distinguish the individual phalanges from the outside. The phalanges are polygonal in cross section, their sides deeply sulcate, the locules subequal, pyramidal, about 10 mm long, irregularly arranged. The endocarp is situated in the median part of the phalange and slightly protrudes at the margin. This resembles *Pandanus duriocarpus* MARTELLI in appearance but its syncarp and phalanges are much larger and locules are in small number. The type was from Yap. It is also known from Tokobe Island, Palau.

ヤツプ島トミル村ノ産、ヤツプ支廳ノ採集ニカカル、パラオ、トコベ島ニモ産スルガ如シ。

Syncarp ハ單一懸垂シ殆ド圓形、徑 18 cm, phalange ハ凡 90, 長倒卵形、長サ 7 cm, 徑 8~5 cm, 上部 1/3 ハ分離シぷりすむ狀ヲナス、上部ハ截形、基部ハ長キ漸尖、胞室ハ 5~7, 普通 5 又ハ 6 殆ド等シ、不規則排列、びらみつど狀、高サ 10 mm = 至リ基部ニ於テ徑 1.5 cm. 胞間ノ溝ハ深ク、柱頭ハ大、馬蹄形内果皮ハ骨質、中央ニ位置シ縁疊上向ス、下部ハ截形、上部中果皮ハ分室、多孔質、外縁ノモノ紡錘形、長サ 2.2 cm = 至ル。

本種ノ phalange ハ互ニ相密接シ外觀上各個體ヲ區別スルコト能ハズ一見 *Pandanus duriocarpoides* Martelli ニ似タルモ本種ノ Syncarp ト Phalange トハ著大且ツ胞室ノ數ガ少キニヨリ區別ガ出來ル。

## Observationes ad Plantas Asiæ Orientalis (XII)\*

auctore

Hiroshi HARA

原 寛：東亞植物考(其十二)

74) **Aconitum** (*Cammarum*) **tonense** NAKAI, sp. nov.

\* Contribution from the Laboratory of Systematic Botany (Prof. T. NAKAI) of the Botanical Institute, Faculty of Science, Tokyo Imperial University.